Dumfries & Galloway

TREE PLANTING GRANT

GUIDE TO GOOD TREE PLANTING PRACTICE

What trees do we suggest to plant in Dumfries & Galloway?

We wish to promote the planting of native trees such as Oak, Aspen, Hazel and Rowan. These trees add greatly to the landscape appeal of the countryside. Oaks are tall, long-lived trees and are particularly striking as field boundary trees, parkland trees or amongst other trees in small copses. In addition to tall trees, there are many appropriate small and medium sized trees and shrubs that can be integrated well together to make diverse, multi-storied woodlands.

Native species are plants or animals that colonise an area naturally i.e. without human assistance. Because of their longer lineage, native trees support a much greater diversity of dependant and associated species and are therefore more highly favoured. It is largely because we are losing so many large native trees to disease and old age, that this tree planting grant has been established.

Why do we want to see more woodland connectivity in D&G?

Woodland fragmentation can lead to isolation of wildlife and trees. Connections between woodlands provide corridors for wildlife and trees to complete key ecological functions on both an individual and population level e.g. breeding, hunting, seed dispersal.

Better connectivity leads to a landscape with both greater biodiversity and genetic diversity, increasing resilience towards disease, climate change, invasive species etc. The health of a landscape directly impacts our lives as it influences soil nutrient cycles, drainage, carbon capture, and mental and physical wellbeing.

CONTACT

D&G WOODLANDS

www. dgwoodlands.org.uk

Thanks to support from:

Scottish Forestry Coilltearachd na h-Alba

Heritage Fund

WOODLAND TRUST SCOTLAND

Dumfries & Galloway Council

Native tree species

Tree Species

Common Name	Latin Name	Size*	Site Conditions
Alder	*Alnus glutinosa*	Medium	Wet soils and riverbanks
Alder Buckthorn	*Frangula alnus*	Small	Wet soils and open woods.
Ash	*Fraxinus excelsior*	Large	Rich, free draining soils that are neutral or slightly alkaline. Full sunlight.
Aspen	*Populus tremula*	Medium	Tolerates a wide range of soil types, climates and exposures. Full sunlight. Not suitable for planting near buildings, drains or other services due to spreading root system.
Bird cherry	*Prunus padus*	Medium	Suitable for moist (but not very wet) soils and riverside planting. Not suitable for very exposed sites.
Crab apple	*Malus sylvestris*	Small	Sheltered, sunny sites. Prefers moist soils.
Downy birch	*Betula pubescens*	Large	Hardy tree that will grow well on most sites. Prefers moist – wet soils. Tolerates frost and exposure. Requires full sunlight.
Field maple	*Acer campestre*	Medium	Tolerates a wide range of soil types as long as they are relatively fertile and not too acidic or wet. Thrives in open wooded habitats and glades.
Gean (wild cherry)	*Prunus avium*	Medium	Rich, free draining soils in a sunny, sheltered location.
Goat willow	*Salix caprea*	Small	Versatile tree that will grow on most sites but thrives in wet soils and on riverbanks. Requires full sunlight. Not suitable for planting near to buildings, drains or other services due to spreading root system.
Holly	*Ilex aquifolium*	Small	Tolerates a wide range of soil types as long as they are free draining. Shade tolerant. Evergreen.
Pedunculate oak	*Quercus robur*	Large	A very long lived tree that prefers rich, moist soils. Requires full sunshine. Tolerates temporary waterlogging and exposure.
Rowan	*Sorbus aucuparia*	Small	A very hardy tree that will grow in almost any conditions except very wet soils. Tolerates high altitudes, frost and high exposure.
Scots pine	*Pinus sylvestris*	Large	A versatile tree that will grow in thin, infertile soils as long as they are free draining. Tolerates exposure and drought. Requires full sun. Evergreen.
Sessile oak	*Quercus petraea*	Large	A hardy tree that grows well in exposed, upland sites. Prefers free draining, acidic soils.
Silver birch	*Betula pendula*	Large	A hardy, versatile tree that will grow on most sites as long as the soils are freely draining. Requires full sunlight.
Spindle	*Euonymus europaeus*	Small	Fairly shade tolerant but more abundant in open habitats, commonly found on forest hedges, in hedges and scrub.
Whitebeam	*Sorbus aria*	Small	Fertile, freely draining soils. Deals well with dry conditions.
Wych elm	*Ulmus glabra*	Large	Fertile, freely draining soils. Handles all soils PH's except very alkaline. Tolerates partial shade.
Yew	*Taxus baccata*	Medium	Shade tolerant woodland understory tree. Slow growing. Poisonous to livestock and people.

*Small: Under 15m, Medium: 15m – 25m, Large: over 25m

Native shrub species

Shrub Species			
Common Name	Latin Name	Size*	Site Conditions
Bay willow	*Salix pentandra*	Small	Wet soils and riverbanks. Not suitable for planting near to buildings, drains or other services due to spreading root system.
Blackthorn	*Prunus spinosa*	Small	A prickly shrub that grows best on freely draining, moderately fertile soils. Provides an effective wind break. Can spread quite quickly. Requires full sunlight.
Dogwood	*Cornus sanguinea*	Small	Will not tolerate shade or waterlogged sites. Best planted in open wooded sites and scattered shrubs. Good blossom for pollinators.
Dog rose	*Rosa canina*	Small	Grows in full sun with moderately fertile, moist but well-drained soil.
Eared willow	*Salix aurita*	Small	Wet soils and riverbanks. Not suitable for planting near to buildings, drains or other services due to spreading root system.
Elder	*Sambucus nigra*	Small	Tolerates a wide range of site conditions but prefers sheltered, woodland sites with most, freely draining soils. Tolerates partial shade. Can spread quickly.
Gorse	*Ulex europaeus*	Small	Thrives in sunny, well drained locations.
Grey willow	*Salix cinerea*	Small	Wet soils in upland sites. Not suitable for planting near to buildings, drains or other services due to spreading root system.
Guelder rose	*Viburnum opulus*	Very Small	An understory woodland shrub that prefers moist, neutral soils.
Hawthorn	*Crategus monogyna*	Small	A versatile shrub that will grow in most soils and conditions except waterlogged soils. It is tolerant of exposure and makes a good windbreak.
Hazel	*Corylus avellana*	Small	Rich, free draining soils. Not suitable for very acidic soils. Requires full or partial sunlight. Tolerates some exposure.
Juniper	*Juniperus communis*	Small	Freely draining acidic or alkaline soils. Prefers open, sunny sites and can handle exposure.
Privet (wild)	*Rhamnus cathartica*	Small	Freely draining soils calcareous or base-rich soils. It can handle droughty conditions. Can tolerate some shade.
Wayfaring tree	*Viburnum lantana*	Small	Does not tolerate shade or waterlogged sites. Does well in droughty conditions.

*Small: Under 15m, Medium: 15m – 25m, Large: over 25m

Non- native tree and shrub species

The following species are best suited to lowland sites with freely draining, fairly fertile soils.

These species should be planted in limited numbers of as part of a diverse mix alongside native species.

Non – Native Tree Species

Common Name	Latin Name	Size*	Site Conditions
Beech	*Fagus sylvatica*	Large	Shade tolerant; cannot tolerate wet soils.
Black poplar	*Populus nigra*	Large	Performs well on wet or waterlogged sites, especially along rivers.
Buckthorn (purging)	*Rhamnus cathartica*	Very Small	Need sunlight. Can handle droughty conditions.
Hornbeam	*Carpinus betulus*	Large	Shade tolerant; tolerates wet soils and exposed sites.
Horse chestnut	*Aesculus hippocastanum*	Large	Tolerates varied soils; grows best in moist, well-drained soils.
Norway maple	*Acer platanoides*	Large	Tolerates partial shade; prefers moist, well-drained soils.
Pear (wild)	*Pyrus communis*	Small	Tolerates a range of soils, apart from very acidic. Fairly drought tolerant, does not do well in waterlogged conditions.
Small leaved lime	*Tilia cordata*	Large	Thrives in fertile, well-drained soil; tolerates some shade but not windy sites.
Sweet chestnut	*Castanea sativa*	Large	Grows in sun or partial shade in moist, well-drained soils.
Sycamore	*Acer pseudoplatanus*	Large	Tolerates exposure; useful as a windbreak.
Walnut	*Sequoiadendron giganteum*	Large	Prefers fertile, well-drained soil.
White poplar	*Populus alba*	Medium	Tolerates salty winds and exposure; effective coastal windbreak. Prefers moist sites, often beside water.
Wild service	*Sorbus torminalis*	Medium	Prefers well-drained sites and full sun; tolerates wind.
Fruit Trees (e.g. apple, pear, plum)		Small - Medium	

*Small: Under 15m, Medium: 15m – 25m, Large: over 25m

Trees recommended for field boundaries, tree line & in-field planting (depending on site)

- Small-leaved lime
- Crab apple
- Field maple
- Aspen
- Willow
- Hawthorn
- Wild Cherry
- Rowan

How to select, plant and care for trees

Important steps to consider for successful tree establishment

1. Assessing site suitability.

Is the site suitable for tree planting and what species of trees would grow best. You need to consider:

- What is under the ground surface? Rocks and shallow soil will restrict tree growth.
- Is the site excessively shaded or exposed to the wind?
- Is tree protection needed? Is the site affected by salt spray?
- Is the site already important for nature conservation (such as species rich grassland or wetland) and somewhere that tree planting could affect this in a negative way. Perhaps you should consider a different site for planting?

2. Pre-planting work and site preparation.

Think about where to plant trees within your site. Are there any restrictions on the size of trees once they mature? Consider the proximity to buildings, underground services such as drains, site boundaries, overhead wires.
How can you achieve woodland connectivity, could you bridge the gap between existing woodlands?

- Young trees must be protected from competing vegetation. This is best achieved by hand weeding.
- Would a mulch of some kind help suppress weeds?
- Plant the trees into the ground and ensure the roots are covered.
- Young trees must be protected from livestock. Where necessary, erect an appropriate stock proof fence or use a tree guard. Think also about potential risks from rabbits, hares and deer – see section 6.

3. Tree species choice.

Tree choice is often best decided by looking around at what grows well in the locality. However, you may have a specific purpose in mind;
i.e. Fruit trees within an orchard, parkland trees, trees to attract wildlife, trees for autumn colour and berries and trees for landscape appeal. Species choice may be influenced by considering:

- If the trees need to grow quickly.
- If there is enough soil moisture for them to grow.
- If the size of the site to be planted is appropriate to species selection.

If you are still in doubt, you should seek further advice and guidance from D&G Woodlands.

4. Selecting planting stock and when to plant

Trees are usually supplied from a nursery as either 'bare rooted stock' or 'cell grown stock'. Both types of stock have benefits. When planting, tree roots should never dry out or be exposed to frost. Trees are best planted on mild, overcast and windless days. Care must be taken if planting on frosty or windy days. Trees should never be planted in prolonged dry conditions.

- Bare rooted stock can be planted between early October and late March. Trees should be planted when the plants are dormant and before individual leaves start to bud.
- Cell grown stock come within their own soil plug, because of this planting can be extended by up to 8 weeks at the beginning and end of the season, i.e. from early-August to late-May.
- Trees come in a variety of sizes. It is generally considered best to plant trees of 60cm in size. Whips up to 90cm in size can also be suitable. Standard trees (up to 3m in height) can do well in appropriate situations. However, it is a misconception that the taller the tree, the better the chance of survival, as shorter trees often outgrow taller (planted) trees in time. The general rule is; the taller the tree, the smaller the chance of survival. Tall trees tend to be very expensive to buy.
- Try and purchase stock from a local nursery that can provide you with a provenance certificate. This will tell you where the tree seeds have come from and whether they are likely to grow well in your locality. Trees that have been grown from seed collected many hundreds of miles away (particularly to the south and east) are much more likely to be less tolerant to disease and suffer higher stress levels due to more challenging growing conditions. The UK and Ireland Sourced and Grown Assurance Scheme is the industry standard for tree procurement. Tree Nurseries should have UKISG approved status.

5. Planting your trees.

When planting, dig a hole deep enough for the tree to be covered up to the up to where the young tree was originally planted with soil (root collar). Place the tree in the hole and push the dugout soil back around it. Gently firm in the tree to prevent air gaps remaining around the roots. The tree may require watering initially. It is important to remember the following at all times:

- Never leave tree roots exposed to air when planting, as they will dry out very quickly.
- Prepare a hole big enough to take all of the root ball.
- Take steps to prevent compaction when planting in clay or wet soils.
- Keep the plant upright.
- Ensure the roots are covered by at least 3cm of soil to prevent the young tree roots from drying out.
- Control weeds and grass growth within 1m of the tree by using mulch or hand weeding.

6. Protection of young trees.

Trees and shrubs must be protected from browsing animals including farm livestock, horses, deer, rabbits and hares. On some sites, mice, voles and weevils can also be a problem. It is also necessary to protect newly planted stock from cold and drying winds which can cause severe damage. Tree protection can be ensured in the following ways:

- Against livestock- Ensure stock fences are of sufficient standard and height to prevent animals leaning over. Depending on the tree being planted and fence type, the distance required can vary from between 1m and 2m (i.e. field boundary trees) to 3m (i.e. parkland trees).
- Deer- Fencing at 1.5m or 1.8m or staked tree shelters at 1.2m or 1.5m high.
- Rabbits & Hares- Rabbit netting on fencing 0.9m high with 150mm dug into ground or staked trees shelters 0.6m or 0.75m high.
- Mice & Voles- Use vole guards (25cm) around base of tree or firmly installed tree shelters (to ground).
- Against weather-Tree shelters offer some protection against wind and frost. Cold and drying winds can kill young trees. Selecting hardy trees for cold, exposed sites is the most effective.
- In most typical South of Scotland situations, a combination of stock proof fencing with trees planted in tree shelters with good weed control will yield the best results.
- A variety of tree shelters are available; some trees prefer open mesh tree shelters such as Beech and Holly, others do well in enclosed tubes however the humid atmosphere within these can cause mildew attacks on some plants but benefit others. Both plastic and biodegradable tree protection is available. There are also alternative methods to using tubes such as overplanting, herbivore control and the use of thorny scrub barriers.

7. Aftercare and maintenance.

It is essential that newly planted trees and shrubs are kept free from weeds and grasses for the first 3 years if they are to establish successfully. Ideally a 1m radius circle should be kept weed free around each tree. During the first year, regularly check that the tree is still firm in the ground. Tread around any loose stems to firm the tree into the ground and re-stake the tree if required. If a tree dies, replace it the following planting season.

Methods of weed control include:

- Mulching: Mulching although not essential, can suppress weeds around trees and also has the added benefit of keeping the ground surface moist. There are a number of types of mulch mat or sheeting available. More organic forms such as chopped straw or wood chips are also effective.
- Hand weeding: This involves removal by hand, of all weeds and weed roots from around the base of the planted tree. This is usually only possible on very small sites. Strimming or mowing is not recommended, as trees can be easily damaged. Mowing can actually increase the competition for nutrients and water as cutting stimulates grass growth.
- Chemical weed control: Consider appropriate use of appropriate herbicide. Please seek professional advice prior to use.

Examples of eligible items and approximate levels of capital grant support*

*Please note that all grants are for materials only and exclude labour, as this cannot be grant aided. Actual costs are likely to vary depending on: location, site conditions, suppliers & fluctuating material prices. We strongly recommend you ask your chosen supplier for an accurate quote prior to submitting your application. (NB: Labour costs can be included for community groups)

Guideline Grants

Item	Approximate Material Cost
1. Erection of	
– Stock fence	£6.50/m
– Flake gate	£80
– Single stile	£50
– Scare wire, temporary/electric or rabbit fence	£2.50/m
– Deer fence	£9-12/m
2. Mulch material (i.e. mulch mat for trees/wood chip)	50p ea
3. Native-species tree (bare root or cell grown)	£1.00 - £1.50 ea (40cm)
4. Tree guard and stake (i.e. 1.2m tree shelters)	£2.00 - £3.00 ea
5. Vole guards	£0.28 ea
6. Parkland trees –Standard sized Amenity trees (native/exotic tree standards)	£25.00/ea
7. Parkland tree protection- Post and rail fencing to protect from livestock/ horses.	£80-100 per box
8. Maintenance of trees - i.e. replacing dead trees & weed control etc., (to be undertaken in the year following planting). Removal of tree guards (after 5 years).	Applicants own expense

FURTHER INFORMATION

D&G Woodlands
D&G Woodlands Office,
The Smiddy,
Balmaclellan,
Castle Douglas,
DG7 3QE.

Phil.Dowling@dgwoodlands.org
07301 052793

SCOTTISH BORDERS

A similar scheme also operates in Scottish Borders and is administered by Tweed Forum.
Please email info@tweedforum.org for more information.

SOUTH & EAST AYRSHIRE

A similar scheme also operates in South & East Ayrshire and is administered by the GSA Biosphere.