

Birch

(*Betula pubescens* Ehrh. & *Betula pendula* Roth)

Distribution & Provenance

There are two species of birch native to Ireland. These are downy birch (*Betula pubescens*) and silver birch (*Betula pendula*). The two species are very similar and often confused. However, silver birch is more common on better soils, dry fen peats and sheltered areas. Downy birch is more commonly associated with exposed areas such as mountains. However, both are distributed widely in Ireland. Downy birch has an extensive natural range, incorporating the whole of northern Europe and Asia. Silver birch is a European species, extending south to the Mediterranean and east through northern Turkey to the Caspian Sea. Virtually all birch that is currently planted in Ireland is of Irish origin.



Natural distribution of silver birch

Silviculture & Management in Ireland

Birch is easily established and regenerates freely from seed that travels long distances on the wind. A large tree can produce up to one million seeds in a year, but only a few of these will germinate and grow into mature trees. Birch will not regenerate or grow well in areas where there is thick grass growth and if planted on such a site, control of competing grass is essential. Favourable conditions for birch natural regeneration are fertilised cutaway midland peats where growth can be prolific and vigorous. Once established, birch grows with great speed for the first 15 to 20 years and often can have grown to 10 metres in height after only 10 years. It is a strong light demander and will not grow in the shade of other species. In pure birch stands, in particular dense, naturally regenerated stands, self thinning will occur.

Birch is not a long lived species and rarely lives beyond 80 years of age or grows to heights of greater than 20 metres. It is vulnerable, when young, to browsing by cattle, sheep, deer and large herbivores.



Mature, free standing silver birch

Non Timber Benefits

Birch fits naturally into the Irish landscape. It is a pioneer species, being one of the first species to colonise bare or unused ground. It is a soil enhancing species with an ability to efficiently recycle nutrients, continuously improving or restoring soil fertility. This, combined with an ability to erode iron pans in podzolised soils makes birch an effective nurse species. Birches support a large community of insects and other invertebrates, with 334 species known to feed on them. The light shading provided by birch makes it a valuable component of riparian woodlands. Birch is also widely planted as an ornamental, urban or roadside tree. Birch bark was traditionally used in the tanning of leather. The spring sap has been used traditionally in beer making and is also used in dental products.



Birch sprig showing catkins

Position in Irish Forestry

For many years birch was considered a weed species in Irish forestry. It was cleared out of commercial conifer plantations and planted as a screen species along roadsides and forest boundaries. In more recent years, its values as a timber tree, an enhancer of biodiversity, a suitable component on sensitive sites and a broadleaved species which tolerates poor sites have been recognised and it is gaining favour among Irish foresters. Birch frequently features in Irish folklore. For example, the Irish for birch, beith, is the name for B in the Ogham alphabet. It features in many placenames throughout Ireland such as Kilbehenny and Ballybay. Over 1.3 million birch transplants are produced and sold annually by Irish nurseries. Coillte, the Irish Forestry Board, currently manage over 3,300 hectares of birch woodland throughout Ireland.

Uses & Markets

Birch produces a pale, lightish brown timber with straight grain and uniform texture. It is not naturally durable and therefore its uses are generally for indoor purposes. However, it is a popular timber for use in rustic furniture. Birch, because of its light, stainless nature, was traditionally used by the textile industry in the manufacture of spools, bobbins and reels. For the same reasons it is used in the manufacture of kitchen utensils and surfaces. Traditionally, fresh birch twigs were used, bound to a pole, as a broom. The twigs are also used in the construction of fences for steeple chasing. In Scandinavia, Russia and the Baltic states, birch timber is peeled to produce plywood veneer. In those countries it also forms an important component of the species mix used by pulp mills. Its naturally pale colour means that less bleach is required in the paper making process.

Further Information

Further information on growing birch can be obtained from your local Forest Service Inspector or any Professional Forester.



Birch growing naturally on a hillside

The birch with the largest recorded girth in Ireland is a downy birch located in Killarney National Park, Co. Kerry and measures 4.5 metres in circumference.



Birch was traditionally used in brooms and for making kitchen utensils