

Ash

(*Fraxinus excelsior* L.)

Distribution & Provenance

Ash is a native species to Ireland but with a wide natural distribution, ranging across Europe as far as central Russia in the east, the Mediterranean in the south and central Sweden in the north. Ash has a strong ability to regenerate naturally on bare ground or in hedgerows, where it is probably best known in Ireland. There are no known differences between ash provenances from different parts of Ireland. Generally, seed used in Ireland is of either Irish or English provenance and has been collected from straight, fast growing trees of good form.



Natural distribution of ash

Silviculture & Management in Ireland

Ash requires moist but free draining, nutrient rich and sheltered but frost free sites on which to produce quality fast grown timber. Because ash is so site demanding, suitable sites are generally small. Ash is planted at an initial stocking of 3,300 stems per hectare at a spacing of 2.0 metre x 1.5 metre (2 metres between rows and 1.5 metres within rows). Vegetation control is extremely important in ash plantations as it is a species very sensitive to competition from weeds for both nutrients and moisture. Ash is a strong light demander and must be thinned heavily and regularly. Thinning promotes the development of large crowns which in turn stimulate diameter growth. Deformed, diseased and over aggressive trees are removed at an early stage and pruning of selected stems is also sometimes necessary. Ash is not known to grow well as a pure crop and pure ash stands have a low volume production per hectare. It is therefore often advised either to plant ash in mixture with other species such as alder or larch or to introduce an under-storey crop such as beech or hornbeam at a stage when the ash is about 15 to 20m tall. Underplanting is currently not widely practiced in Ireland and it is advisable to consult a qualified forester on such a matter. Sizeable ash thinnings (approximately 30 centimetres in diameter at breast height) can be harvested for hurley production. This is a highly skilled operation and should be carried out by the hurley maker. Following this harvest, the crop is grown on for a further 20 years to produce veneer logs and large sawlogs.



Mature, free standing ash



Ash leaf and seeds

Ash is very susceptible to frost which causes forking of the main stem and can result in poor quality stem form. It is therefore not suited to sites where frosts occur regularly. Other risks to ash crops include livestock trespass, browsing from rabbits, hares and deer and ash bud moth which lives in ash buds and can cause forking.

Non Timber Benefits

As a native species, ash has important heritage and ecological values. It fits naturally into the Irish landscape, both as a hedgerow and woodland species. Ash is the latest of the broadleaved species to flush in the springtime and its crown and foliage are light. The combination of these two factors allows a high level of light to reach the woodland floor, thus fostering a rich array of ground flora and fauna.

Position in Irish Forestry

Ash has become a popular species to plant amongst farm foresters, particularly in recent times with the increasing availability of better sites for planting. Irish nurseries currently produce and sell approximately 2.5 million ash transplants each year making it one of the most popular broadleaved species alongside oak. In 1999 alone, 806 hectares of ash were planted in Ireland. Virtually all of this planting was carried out by the private sector. Coillte, the Irish Forestry Board, currently manage over 2,700 hectares of ash in Ireland.

Ash is commonly referred to in Ireland's cultural heritage and has often been associated with sacred wooded sites known as "bile" from which townland names such as Knockavilla have been derived.

Uses & Markets

Ash has large annual rings and a clean white appearance with a distinctive sheen making it popular for a variety of uses. Ash timber, when grown quickly, is strong and flexible with a good capacity for shock absorbency. For this reason ash has been traditionally used in Ireland for the production of hurleys. Hurleys are manufactured from the butt log (bottom 1.5 metre of the stem) and from trees of a diameter at breast height of approximately 30 centimetres. Only fast grown, straight and branch free ash can be used for this purpose. The same shock absorbing qualities make ash suitable for other sports equipment and tool handles. Larger ash stems may be used as veneer logs or sawlogs for use in furniture manufacture. Generally, ash for such purposes is grown to a diameter at breast height of 50–60 centimetres. Ash also has a high calorific value and is consequently a preferred firewood species.

Further Information

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



Ash grown in a plantation

The tallest ash recorded in Ireland is located in Clonmel, Co. Tipperary and measures 40 metres in height.



Hurleys are manufactured from ash timber