

Larch

(*Larix decidua* Mill., *Larix kaempferi* (Lamb.) Carr.)

Distribution & Provenance

There are two species of larch commonly planted in Ireland. These are European larch (*Larix decidua*) and Japanese larch (*Larix kaempferi*). A hybrid between these two species called hybrid larch (*Larix x eurolepis*) is also commonly planted and is considered more productive than either parent. European larch was first introduced to Britain around 1620 while Japanese larch was not introduced to Ireland until 1865. The first hybrid larch was discovered in Dunkeld, Scotland in 1904. European larch grows naturally in central Europe from south east France in the west to the Tatra mountains of southern Poland and Slovakia in the east. There are four distinct provenances of European larch: Alpine, Sudeten, Polish and Tatra. The Polish provenance of European larch is currently favoured by Irish foresters. Japanese larch originates from a small region in the centre of Honshu Island, Japan and there is thought to be only a single provenance of the species.



Natural distribution of European larch

Silviculture & Management in Ireland

European larch requires a fertile, free draining yet moist site and is intolerant of very wet or very dry conditions. Japanese and Hybrid larches have similar requirements but are slightly more tolerant of wetter conditions and exposure. All three species prefer a pH range of between 5 and 7. Initial growth of larch is almost always rapid, sometimes so rapid as to cause rocking and toppling due to inadequate root anchoring. Larch is extremely light demanding and it is important that competing vegetation is controlled in the first years after planting until the young plants rise above the competition. Again, because of its light demanding nature, larch must be thinned early and frequently thereafter in order to allow room for full crown development. Larch is a self pruning species and thinning operations will generally dislodge loose or dead branches. Larch is a relatively deep rooting species and as a result is generally considered wind firm. In Ireland, it is typically grown over a rotation of 50 to 60 years and, because of its requirement for heavy thinning throughout the rotation, final crop volumes are relatively low.

European larch is susceptible to canker and die back while Japanese and hybrid larch appear to be resistant to both. All are susceptible to *Armillariella mellea* (honey fungus) which causes root and butt rot. Young larch sprigs are highly palatable to browsing herbivores, particularly deer, and considerable damage can be caused by browsing.



Free standing larch in Autumn



Larch sprig and cone

Non Timber Benefits

Larch is the only deciduous conifer commonly planted in Ireland. Because of this, it is often included in plantations because of the variety of colours it brings to the landscape throughout the changing seasons. Larch is generally managed in such a way that stocking (stems per hectare) is low, thus allowing ground vegetation to re-establish quickly following thinning operations. This provides diversity of habitat for wildlife and visual diversity for forest visitors. It is also of value in fire belts as the vigorous growth of establishing crops quickly suppresses ground vegetation which is commonly a fire hazard in younger plantations. Larch is also favoured for roadside (motorway) planting and is considered a useful tree to ameliorate the appearance of clearfell sites close to public access. Larch is often used for decorative purposes in floral arrangements.

Position in Irish Forestry

European larch was a popular species in Irish forestry from the period of early plantings in the 18th century until the 1940's and 50's when it was replaced by the more productive Japanese larch and then hybrid larch. Larch is frequently used in mixture with other species. With broadleaves such as oak and beech it is used as a nurse while with conifers, as well as acting as a nurse, it fulfils the function of softening the visual impact of darker spruce plantations. Coillte, the Irish Forestry Board, actively manage over 10,500 hectares of larch, the vast majority of which is Japanese larch. Significant areas of larch are also planted by the private sector. A high proportion of these areas are in mixture with other species. Irish nurseries sell nearly 7 million larch plants into the Irish market annually.

Uses & Markets

Larch timber has a pale creamy brown sapwood and a distinctly reddish brown heartwood which is naturally durable and strong. This inherent durability and strength means that it has traditionally been used for fencing, gate material, boat building and other outdoor uses. The effective preservative treatment of other timbers has led to a situation where larch is not as important a timber as it once was. Nevertheless, the advantage of larch as a durable timber is still appreciated and it is still the standard by which all other softwood fencing stakes are judged by farmers. Larch is also used as a flooring material and for general structural purposes. It is often selected for use by architects and builders because of its attractive reddish colour.

Further Information

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



Larch woodland in autumn

The tallest larch recorded in Ireland is a European larch located in Doneraile, Co. Cork and measures 34.5 metres in height.



Larch is traditionally used in boat building

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