

# Scots pine

(*Pinus sylvestris* L.)

## Distribution & Provenance

Scots pine has an extensive natural range from Scotland in western Europe to the Werchojansk mountains in eastern Siberia and from northern Norway to the south of Spain. The species was once a native to Ireland, covering large tracts of both mountain and lowland and it is unclear when or how exactly it became extinct. For many years it was thought that the last naturally occurring Scots pine in Ireland disappeared at the onset of the last Ice Age, some 10,500 years ago. However, evidence of man's involvement in the felling of bog pine and the survival of *Formica rufa*, the wood ant, in the Galtee Mountains contributes to the growing belief that the species may have made its disappearance much more recently, perhaps in early Christian times. In fact, Scots pine is still often considered as a native tree. The best stands of Scots pine currently standing in Ireland tend to be of Scottish provenance. Little is known of the suitability of European provenances but Scandinavian and Nordic sources are thought not to be suited for planting in Ireland. Currently, Scottish provenances are favoured by Irish foresters.



Natural distribution of Scots pine



Free standing "Stag Headed" Scots pine



Scots pine sprig and cone

## Silviculture & Management in Ireland

Scots pine is a good choice of species on light soils with fairly free drainage such as deep podzols, brown podzolics, brown earths and sandy soils. Optimum soil pH for growth of Scots pine is about 5.5 and the species does not grow well on chalk or limestone based soils. It does not grow well on exposed peats or any wet soil types at high elevation. Despite this, it is a relatively hardy species, tolerant of late spring and early autumn frosts. Because of this, it shows great promise as a suitable species for establishment on milled peat cutaway bogs. Scots pine is a light demanding species and can grow very vigorously in its early years. First thinning should be early and should concentrate on the removal of aggressive, coarsely branched "wolf" trees, leaving the better stems to thrive. Subsequent thinnings should be selective and should concentrate on the promotion of full crown development on the best stems in the stand. Pruning is necessary in order to reduce the number and size of knots in the stem. As Scots pine matures, it becomes self pruning but this can leave large dead knots, adversely affecting timber quality. Scots pine is normally grown over a rotation length of 70 to 80 years on good sites in Ireland.

Scots pine is now often left to grow beyond the optimal financial rotation because of its popularity as a species of high amenity when mature. In such instances, a natural under-storey of oak, holly and hazel can develop.

Scots pine is susceptible to damage from red squirrels which, particularly at pole stage, eat the bark of branches and leaders. Other threats to commercial production of Scots pine are the pine shoot moth (*Rhyacionia buoliana*), the large pine weevil (*Hylobius abietis*) and to a lesser extent, the butt rot fungus (*Heterobasidion annosum*) and honey fungus (*Armillariella mellea*).

## Non Timber Benefits

Scots pine fits naturally into the Irish landscape. It is very attractive as a mature tree with its unique "stag headed" crown form and warm reddish coloured bark. The fact that it is a self pruning species means that it fosters a diverse ground flora and fauna. Scots pine grows well in mixture with other species, particularly larch, oak, Norway spruce and birch. Scots pine is the favoured habitat of the red squirrel and many species of insects and birds.

## Position in Irish Forestry

Despite the controversy as to its survival, Scots pine has always been significant in Irish history. It was regarded as a tree of importance by the Celts and had a number of names ascribed to it, including that of "Giúis". Scots pine has been planted in Ireland as a timber and ornamental tree since the 1700's and was for long periods in the 18th and 19th centuries, with European larch, the main conifer species planted. Following the establishment of the State Forest Service, it was extensively planted in commercial plantations up until the 1950's when it was planted on better quality sites but also on old red sandstone podsol sites. It fell out of favour during the 1960s when it was replaced by lodgepole pine as the species of preference for poor mountain sites. However, the planting of Scots pine is now encouraged again as a diverse conifer and in mixture with broadleaves, oak in particular. It is considered an acceptable species for some woodland areas of conservation interest. There are over 1.1 million Scots pine transplants produced and sold by Irish nurseries each year. Coillte, the Irish Forestry Board, manage over 6,800 hectares of Scots pine woodland. There is known to be considerably more under private sector management.



Scots pine in woodland setting

The Scots pine with the largest recorded girth in Ireland is located in Abbeyfeix, Co. Laois and measures 5.57 metres in circumference.

## Uses & Markets

Scots pine is the most important timber in the economy of northern Europe and is known commercially as "red deal". It is imported into Ireland in large quantities and is the standard by which other utility softwoods are judged. The timber is light and strong and takes an excellent finish, particularly when straight grained. However, strength and workability is adversely affected by knots and other defects. Scots pine timber can be readily impregnated with preservative and is therefore the species of choice throughout Europe for transmission poles. This property also makes it an ideal material for fencing and other outdoor uses. As a sawn timber it is used in construction and joinery, while the lower grades are used for pallet and board manufacture.



Scots pine is used as a material for skirting boards

## Further Information

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